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lished by comparing the proper motion of the principal star as derived from the micrometrical measures with that furnished by the meridian observations. I have obtained the following results from the measures of position-angle and distance:—

$$\mu = - 0^s.00046, \quad \mu' = - 0''.1058,$$

while those given by Professor NEWCOMB in his "Catalogue of Fundamental Stars," derived from the meridian observations of the principal star, are:—

$$\mu = - 0^s.00075, \quad \mu' = - 0''.1090.$$

These results are in substantial agreement; their differences may be attributed entirely to errors of observation.

W. J. HUSSEY.

VISUAL EXAMINATION OF *CAPELLA*.

[Reprinted from *Astronomical Journal*, No. —.]

Some months ago Professor CAMPBELL discovered that *Capella* is a spectroscopic binary having a period of 104 days. From the spectroscopic observations it is known that the orbit is nearly circular, and that the components are not very unequal in brightness. The variations of the velocities of the components in the line of sight furnish the minimum dimensions of the orbit. A combination of these dimensions with ELKIN's parallax gives a result from which it appeared not impossible that *Capella* might at times be seen as a visual double star, thus forming a connecting link between the visual and spectroscopic binaries. The recent most favorable dates for the examination of the star to this end were April 15th, June 6th, and July 28th. At these times the apparent distance between the components would be a maximum. On account of the orbit's being nearly circular the apparent distance has nearly its maximum value for a few days on either side of the dates given.

Early in June I examined *Capella* on several afternoons with the 36-inch telescope without obtaining any visual evidence of its being a double star. The results then obtained, however, were not regarded as conclusive; for the seeing, though good, was not such as to be rated as excellent according to our standards. These examinations were made when the star was from three to four hours west of the meridian.

On the nights of August 2d and 5th I made further examinations with the same telescope, using powers 1000, 1500, 1900,

and 2600. With all powers the star appeared round. On these dates the seeing was excellent and stood all these powers perfectly. On the last date the seeing was perhaps the best. Even at Mt. Hamilton we have few nights that are better in the course of a year. With such conditions as then prevailed an elongation of a tenth of a second would have been readily perceptible with the lowest power used, and a considerably smaller distance would have been noted with the higher ones. At the times of these observations the star was between three and four hours east of the meridian. On August 5th color-screens of various shades were used a part of the time to reduce the light. On this date Mr. PERRINE was with me. He also made a very careful examination of the star with all powers, without detecting any elongation.

W. J. HUSSEY.

MT. HAMILTON, Aug. 10, 1900.

NOTE ON *CAPELLA* AS A DOUBLE STAR.

The elements deduced from the spectroscopic observations of this binary system indicated the possibility that the two components might be sufficiently separated to be seen directly with the 36-inch refractor. The star was therefore examined with that instrument under good conditions on the evenings of February 24th, and April 16th, and on the mornings of July 22d, July 29th, and August 11th. Once or twice, especially on the first night, a slight elongation was suspected, but settings with the micrometer ranged over 60° , showing that no real elongation was observed. On the morning of July 29th, the seeing was very good; several very difficult stars were measured shortly before turning to *Capella*; and the latter star was followed for over an hour, using eye-pieces of all powers to 2600, with and without shades of red and orange glass, but no certain elongation could be detected. The spectroscopic observations show that the separation of the two components was a maximum on the dates February 22d, April 15th, and July 28-29th.

R. G. AITKEN.

September, 1900.

THE TRIPLE STAR κ *PEGASI*.

The visual double star having the shortest known period of revolution is the fourth-magnitude star κ *Pegasi*. It was discovered by BURNHAM in 1880 with the $18\frac{1}{2}$ -inch telescope, and